

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/026852

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F16L47/00 F16L13/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 5 105 787 A (IMOHL WILLIAM J) 21 April 1992 (1992-04-21) abstract; figure 1  column 2, line 45 - column 3, line 10	1-5, 10, 12, 15 6-9, 11, 13, 14, 16-20
X	US 5 509 699 A (HIMMELBERGER JOHN) 23 April 1996 (1996-04-23) abstract; figures	1, 2, 5, 6
Y	US 5 447 341 A (KAHLEFELD HERMANN ET AL) 5 September 1995 (1995-09-05) abstract; figure 1	6, 7, 13, 14, 16-18
Y	DE 91 03 511 U (BREHM) 20 June 1991 (1991-06-20) figure 1	8
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

22 October 2004

Date of mailing of the international search report

28/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3016

Authorized officer

Balzer, R